

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior version, and listings, of claims in the application:

Listing of Claims:

Claims 1-11 (canceled).

12. (New) A device for determining at least one parameter of an intake air mass for an internal combustion engine, the intake air mass flowing in a line in a main flow direction, comprising:

a housing having a measuring channel, wherein the housing is configured to be inserted into the line at a predetermined alignment with respect to the main flow direction, whereby at least a portion of the intake air mass flowing in the line in the main flow direction flows through the at least one measuring channel in a first direction from an intake of the measuring channel to an outlet of the measuring channel;

a measuring element situated in the measuring channel for determining the at least one parameter; and

a mechanism situated in at least one channel segment located between the intake and the outlet of the measuring channel, wherein the mechanism causes flow vortices in the at least one channel segment.

13. (New) The device as recited in Claim 12, wherein the at least one channel segment is situated, when viewed in the first direction, between the measuring element and the outlet of the measuring channel, and wherein the mechanism causes flow vortices in the at least one channel segment at least in the case of a return flow of the intake air mass flowing from the outlet to the intake of the measuring channel in a second direction counter to the first direction.

14. (New) The device as recited in Claim 13, wherein the mechanism is formed by structuring an inner wall of the at least one channel segment.

15. (New) The device as recited in Claim 14, wherein the inner wall includes one of steps, edges, and projections suitable for generating flow vortices.

16. (New) The device as recited in Claim 15, wherein the inner wall of the at least one channel segment includes at least one step.

17. (New) The device as recited in Claim 16, wherein at least two steps are formed on opposing sides of the inner wall of the at least one channel segment.

18. (New) The device as recited in Claim 16, wherein the measuring channel includes a further segment having an interior cross-section continuously tapering in the first direction, and wherein the further segment is followed, in the first direction, by the at least one channel segment, and wherein the at least one channel segment has an interior cross-section increasing by a plurality of steps in the first direction.

19. (New) The device as recited in Claim 16, wherein the at least one step includes an edge extending at least one of: a) at least partly at an angle to a direction of flow of air mass in the measuring channel; and b) at least partly transversely to a direction of flow of air mass in the measuring channel.

20. (New) The device as recited in Claims 18, wherein each step includes an edge extending at least one of: a) at least partly at an angle to a direction of flow of air mass in the measuring channel; and b) at least partly transversely to a direction of flow of air mass in the measuring channel.

21. (New) The device as recited in Claim 16, wherein the at least one step includes an edge extending substantially transverse to a direction of flow of air mass in the measuring channel, and wherein the at least one step includes a recess opening towards the edge of the step, and wherein the recess includes edges extending one of: a) at least partly at an angle to a direction of flow of air mass in the measuring channel; and b) parallel to a direction of flow of air mass in the measuring channel.

22. (New) The device as recited in Claim 18, wherein each step includes an edge extending substantially transverse to a direction of flow of air mass in the measuring channel, and wherein the at least one step includes a recess opening towards the edge of the step, and wherein the recess includes edges extending one of: a) at least partly at an angle to a direction of flow of air mass in the measuring channel; and b) parallel to a direction of flow of air mass in the measuring channel.

23. (New) The device as recited in Claim 14, wherein the mechanism is provided on the inner wall of the at least one channel segment, the mechanism having edges that extend approximately parallel to a direction of flow of air mass in the measuring channel.

24. (New) The device as recited in Claim 23, wherein the mechanism includes inwardly projecting longitudinal ribs extending substantially parallel to the direction of flow of the air mass in the measuring channel, and wherein the longitudinal ribs are distributed over the inner circumference of the inner wall in the at least one channel segment.